

# SERIES MPS



Model MPS 620M

The MPS is a 70 Watt, triple output power supply specifically designed to meet the needs of IC/microprocessor experimenters. It is actually two linear (series pass) power supplies in one.

The first has a single 0-6V, 0-5A output backed up by an adjustable current limiter and overvoltage crowbar for digital work. The second has two tracked outputs, 0 to +20V and 0 to -20V, both rated at 0-1 Amp. The two power supplies are completely isolated from each other, sharing only the front panel meters and the chassis.

The 0-6V output is continuously adjustable with a front panel 10-turn control and is backed up by a fixed, rectangular current limit set to ~110% of maximum current. It is monitored by an overvoltage crowbar controlled by a locking type screwdriver adjustment on the front panel, setting range: 4 to 8V d-c. A crowbar-on LED is provided for convenient setting of the crowbar level.

The 0 to  $\pm 20V$  outputs are continuously adjustable with a single 10-turn front panel control. Tracking is better than  $\pm 1\%$  +10mV. They are equipped with adjustable current limits. Adjustment range is ~10% to 105% of rated current.

The 0 to  $\pm 20V$  outputs can be used in series to provide 0-40V (but not in parallel, since they share a common center terminal).

## MPS 620M OUTPUT RATINGS

OUTPUT 1		OUTPUT 2		OUTPUT 3	
VOLTS	AMPS	VOLTS(1)	AMPS	VOLTS(1)	AMPS
0-6	0-5	0 to +20	0 to +1	0 to -20	0 to -1

(1) Tracked with single 10-turn control

## FEATURES

- Linear low-noise voltage stabilization.
- Large display meters.
- 10 turn voltage control for exceptional resolution.
- Convenient front panel binding posts for all outputs.
- 0-6V supply backed with an overvoltage protector.
- $\pm 20V$  outputs. Single knob controls both in a tracking mode.



## MPS 620M GENERAL SPECIFICATIONS

SPECIFICATION	RATING/DESCRIPTION	CONDITION
<b>INPUT</b>		
Voltage	105-125/210-250V a-c	User selectable
Current	2A rms	Maximum load, 115V a-c
Frequency	50-440Hz	
<b>OUTPUT</b>		
d-c Output	Transistor	Series pass
Type of Stabilizer	Voltage	Current limited
Voltage Adjustment Range	0-100% of rating	0 to +50°C
Current Limiting Range	110% fixed	6V output
	10-105% internal	0 to ±20V output
Error Sense Voltage Allowance <sup>(1)</sup>	0.5V per lead	6V output only
Voltage Recovery	<50 µsec typ, 100 µsec max	Step load current change, 10% to 100% max
Isolation Voltage	300V d-c or peak	Output to ground
Series Connection	The two 20V outputs can be used in series to provide 40V	
OVP	Adjustable 4-8V d-c	6V output only
<b>CONTROL</b>		
Voltage	10-turn precision controls	Manual, all outputs
<b>MECHANICAL</b>		
Input Connections	Detachable IEC type, 3-wire	
Output Connections	Front panel binding posts and rear barrier strip	d-c output and sensing
Meters	Two 2½", 2%, analog	Display voltage and current for output chosen by 3-position switch
Indicators	One LED, one neon	Crowbar; power on
Mounting (in standard 19" rack)	Use Kepco RA 24 rack adapter	
Cooling	Convection	
Dimensions inches (HxWxD)	5 7/32 x 12 17/32 x 12 7/8	¾ rack size
	132.6 x 318.3 x 327	
Finish; Fed Std 595	Black & light gray, color 26440	Front panel, two-tone
	Textured dark gray	Cover
Weight	29lb (13.1Kg)	Packed for shipment

(1) An additional 1 Volt is provided in the output beyond the rating of the 6V output for this purpose.

## MPS 620M STATIC SPECIFICATIONS

INFLUENCE QUANTITY	OUTPUT EFFECTS	
	0 to 6V	0 to ±20V
Source: 105-125/210-250V a-c	0.01%	0.01%
Load: no load – full load	0.01%(1)	0.05%(1)
Time: 8-hour (drift)	0.01%	0.01%
Temperature: per °C	0.01%	0.01%
Ripple and Noise	rms	0.1mV
	p-p	1.0mV

(1) Or 5mV, whichever is greater.



Both sections of MPS 620M have the capacity to sustain short circuit current indefinitely.

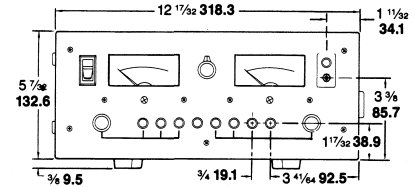
Two large (2½") front panel meters display Volts and Amps for any of the three outputs, as chosen by a 3-position switch.

Convenient front panel binding posts offer easy connection to your experiment. Rear barrier strips are provided for more permanent installation.

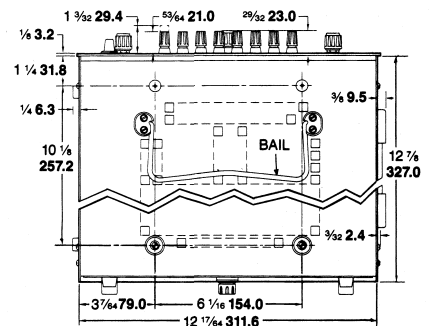
### OUTLINE DIMENSIONAL DRAWINGS

Fractional dimensions in light face type are in inches, dimensions in bold face type are in millimeters.

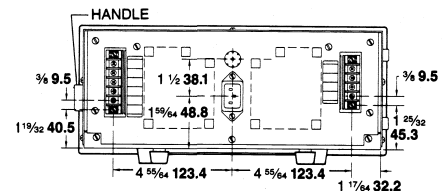
Tolerance: ± 1/64" (0.4) between mounting holes  
 ± 1/32" (0.8) other dimensions



FRONT VIEW



BOTTOM VIEW



REAR VIEW

MPS 620M power supplies can be rack mounted using RA 24. See page 77.